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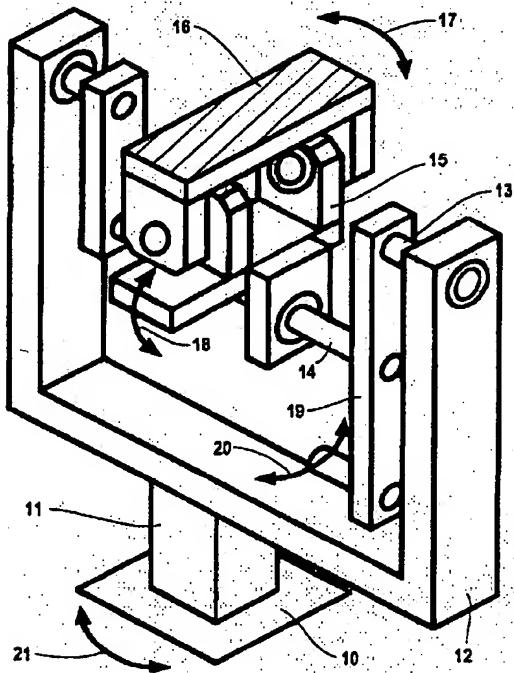
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(54) Titre : DISPOSITIF POUR FAIRE TRAVAILLER LES MUSCLES DU DOS PAR LA TRANSMISSION  
D'OSCILLATIONS A UN VOLONTAIRE ASSIS.  
(54) Title: DEVICE FOR TRAINING THE BACK MUSCLES BY THE TRANSMISSION OF OSCILLATIONS TO A  
SITTING TEST SUBJECT



## (57) Abrégé/Abstract:

The invention relates to a device for improving the spinal column muscles by training these muscles with oscillations, without extreme excursive movements, said device having a seat carrier (16) which is mounted so that it can move in a number of dimensions about at least one pivot point (5, 6). The device has drive means which are used to supply multidimensional movement impulses, whose frequency and amplitude are adjustable, to the seat carrier (16). According to the invention, the seat carrier (16) is held so that it can tilt laterally about its longitudinal axis (2) as well as forwards. The seat carrier (16) can also be swivelled about a pivot point (6) forwards and upwards along a circular path, in which case the seat carrier (16) remains horizontal, and it can be rotated about its vertical axis (4).

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RAE Ann - Faigle - Kittel +4 9131 8129299

S.13

**Abstract**

The invention relates to a device for improving the spinal column muscles by training these muscles with oscillations, without extreme excursive movements, said device having a seat carrier (16) which is mounted so that it can move in a number of dimensions about at least one pivot point (5, 6). The device has drive means which are used to supply multidimensional movement impulses, whose frequency and amplitude are adjustable, to the seat carrier (16). According to the invention, the seat carrier (16) is held so that it can tilt laterally about its longitudinal axis (2) as well as forwards. The seat carrier (16) can also be swivelled about a pivot point (6) forwards and upwards along a circular path, in which case the seat carrier (16) remains horizontal, and it can be rotated about its vertical axis (4).

CA 02246625 2002-01-23

29628-1

-9-

CLAIMS:

1. Device for training the back muscles with a seat carrier (16) characterized in that the seat carrier (16) is mounted in at least one pivot point (5, 6) and can move in a number of dimensions, and that the device has drive means which are used to supply multidimensional movement impulses to the seat carrier (16) for various movement components which can be freely controlled with respect to frequency and amplitude.
- 10 2. Device according to Claim 1, characterized in that spatial positions of the pivot points (5, 6) of the seat carrier (16) for the movement impulses in different directions are not the same.
- 15 3. Device according to Claim 1 or 2, characterized in that the drive means are designed in such a way that the seat carrier (16) can execute movement impulses whose frequency and amplitude are adjustable.
- 20 4. Device according to one of Claims 1 to 3, characterized in that the seat carrier (16) is held so that it can tilt laterally about its longitudinal axis (2).
- 25 5. Device according to one of Claims 1 to 4, characterized in that the seat carrier (16) is held so that it can tilt forwards.
6. Device according to one of Claims 1 to 5, characterized in that the seat carrier (16) can be swivelled about a pivot point (6) forwards and upwards along a circular path, in which case the seat carrier (16) remains horizontal.

CA 02246625 2002-01-23

29628-1

-10-

7. Device according to one of Claims 1 to 6, characterized in that the seat carrier (16) can be rotated about its vertical axis (4).
8. Device according to one of Claims 1 to 7, 5 characterized in that the seat carrier is a seat device (16) in the shape of a riding saddle.
9. Device according to Claim 8, characterized in that the seat device (16) in the shape of a riding saddle can execute tilting movements, adjustable in frequency and 10 amplitude, about its longitudinal axis.
10. Device according to one of Claims 1 to 9, with a base (10) and an upright (11) for supporting the seat carrier (16), characterized in that the drive means turn the upright (11) about its vertical axis (4).
- 15 11. Device according to one of Claims 1 to 7, characterized in that the device is an office chair, the seating surface of which is provided with drive means.
12. Device according to one of Claims 1 to 11, 20 characterized in that it has a base (10) on which there is fixed an upright (11) which bears a U-shaped fork (12), in that a shaft (13) bent at right angles is mounted rotatably between the ends of the fork (12), in that an intermediate support (15) is fixed rotatably on the angled shaft part (14), and in that the seat carrier (16) is arranged in the 25 longitudinal direction of the intermediate support (15) and is also mounted so that it can rotate.

FETHERSTONHAUGH & CO.  
OTTAWA, CANADA

PATENT AGENTS

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WO 97/29815

PCT/DE97/00255

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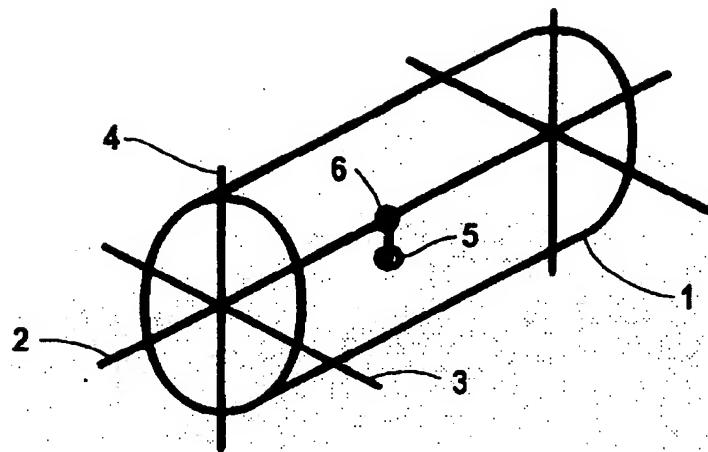


FIG 1

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S.15

WO 97/29815

PCT/DE97/00255

2/5

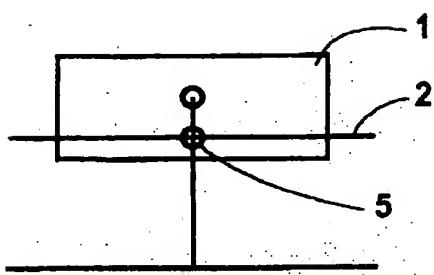


FIG 2

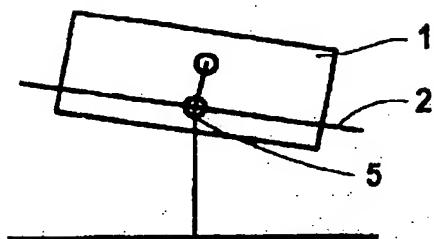


FIG 3

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WO 97/29815

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3/5

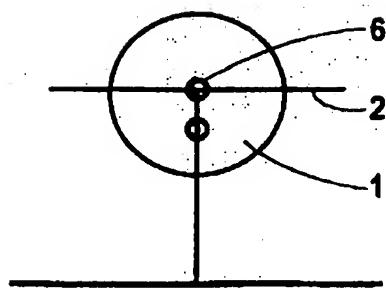


FIG 4

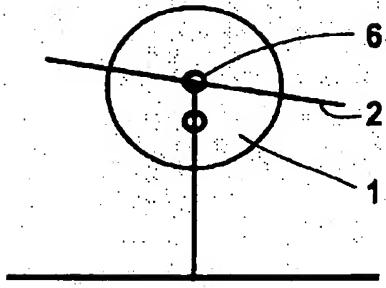


FIG 5

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S.17

WO 97/29815

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4/5

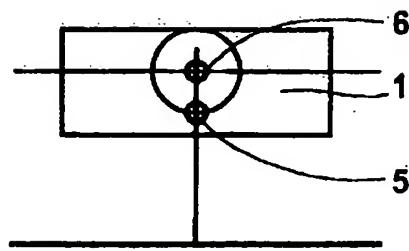


FIG 6

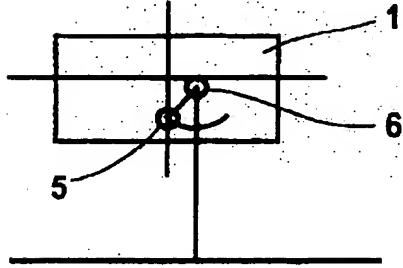


FIG 7

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WO 97/29815

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5/5

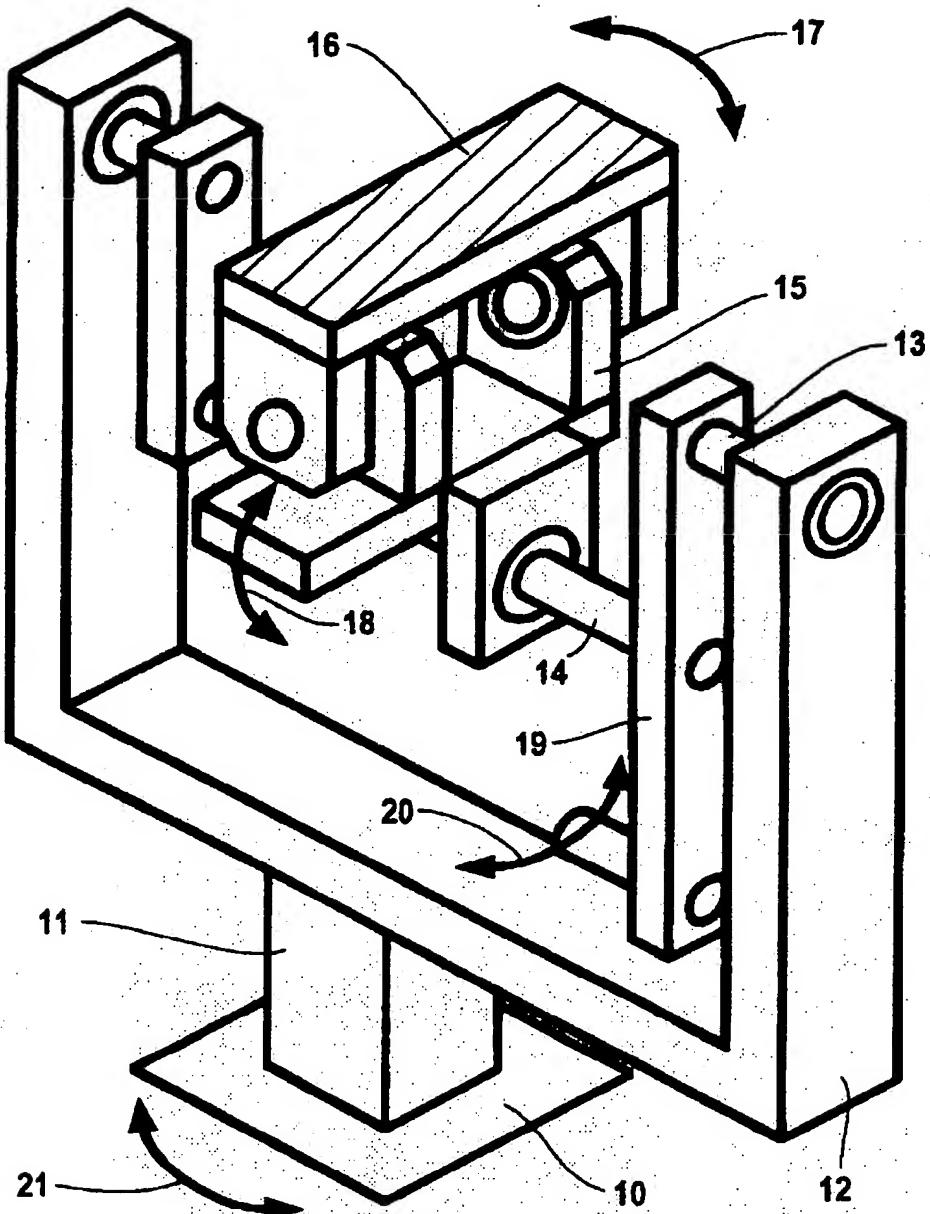


FIG 8